

1. (Currently Amended) An electrostatic discharge (ESD)-protective structure that protects an integrated semiconductor circuit connected between a first potential bus with a first supply potential (VCC) and a second potential bus with a second supply potential (VSS), ~~said the~~ electrostatic discharge protective structure comprising:

an electrostatic discharge diode having a first region doped with a first conduction type and a second region doped with a second conduction type, ~~spaced apart from said first region;~~ ~~said second region being doped with a second conduction type, wherein where~~ ~~said the~~ electrostatic discharge protective structure is located between the first and second potential busses and drains off an overvoltage pulse to one of the first and second potential busses, ~~wherein where~~ ~~said the laterally formed~~ electrostatic discharge diode includes a gate electrode located between ~~said the~~ first region and ~~said the~~ second region, ~~said the~~ first region being separated from ~~said the~~ second region by a distance that is equal to a width dimension of the gate electrode, and where ~~said the~~ gate electrode and ~~said the~~ second region are both directly connected to the second supply potential.

2. (Currently Amended) The electrostatic discharge protective structure of claim 1, ~~wherein where~~ ~~said the~~ protective structure includes a semiconductor body having a surface in which ~~said the~~ first region and ~~said the~~ second region are embedded, ~~wherein where~~ ~~said the~~ first region is connected via a first electrode to the first potential bus, and ~~said the~~ second region is connected via a second electrode to the second potential bus.

3. (Currently Amended) The electrostatic discharge protective structure of claim 2,

~~wherein~~~~where said~~the semiconductor body includes charge carriers of the second conduction type, and ~~said~~the gate electrode and ~~said~~the second electrode are connected to ~~said~~the second potential bus.

4. (Currently Amended) The electrostatic discharge protective structure of claim 2, ~~wherein~~~~where said~~the semiconductor body includes charge carriers of the first conduction type, and at least one well of the second conduction type is embedded in ~~said~~the semiconductor body, and ~~said~~the first and second regions are embedded in ~~said~~the well.

5. (Currently Amended) The electrostatic discharge protective structure of claim 4, ~~wherein~~~~where said~~the second region laterally encloses ~~said~~the first region.

6. (Currently Amended) The electrostatic discharge protective structure of claim 4, ~~wherein~~~~where~~ the integrated semiconductor circuit is configured and arranged as a MOS or CMOS circuit.

7. (Currently Amended) The electrostatic discharge protective structure of claim 2, comprising a gate dielectric that spaces ~~said~~the semiconductor body at a distance from the gate electrode.

8. (Currently Amended) The electrostatic discharge protective structure of claim 7, ~~wherein~~~~where said~~the gate dielectric contains silicon dioxide and ~~said~~the gate electrode contains polysilicon.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Currently Amended) An integrated circuit with electrostatic discharge protection, saidthe integrated circuit comprising:

a circuit to be protected; and

an electrostatic discharge device that is disposed electrically parallel to saidthe circuit to be protected between first and second voltage busses, whereinwhere saidthe electrostatic discharge device includes an electrostatic discharge diode including

(i) a first region doped with a first conduction type material within a substrate;

(ii) a second region doped with a second conduction type material within saidthe substrate; and

(iii) a gate electrode having a width W and located between saidthe first and second regions such that saidthe first and second regions are separated by the width W, where saidthe gate electrode and saidthe second region are both directly connected to the same electrical potential.

14. (Currently Amended) The integrated circuit of claim 13, comprising a gate oxide disposed on

~~said~~the substrate between ~~said~~the first and second conduction regions and underlying ~~said~~the gate electrode.

15. (Currently Amended) The integrated circuit of claim 14, comprising a first electrode disposed on ~~said~~the substrate overlaying ~~said~~the first region, and a second electrode disposed on ~~said~~the substrate overlaying ~~said~~the second region, ~~wherein~~where ~~said~~the first electrode is connected to the first voltage bus and ~~said~~the second electrode is connected to ~~said~~the second bus.

16. (Currently Amended) An integrated circuit with electrostatic discharge protection, ~~said~~the integrated circuit comprising:

a circuit to be protected; and

an electrostatic discharge device that is disposed electrically parallel to ~~said~~the circuit to be protected between first and second voltage busses, ~~wherein~~where ~~said~~the electrostatic discharge device includes an electrostatic discharge diode including

- (i) a first doped region doped with a first conduction type material within a substrate;
- (ii) a first electrode in communication with ~~said~~the first doped region, ~~said~~the first electrode being coupled to the first voltage bus;
- (iii) a second doped region doped with a second conduction type material within ~~said~~the substrate;
- (iv) a second electrode in communication with ~~said~~the second doped region, ~~said~~the second electrode being coupled directly connected to the second voltage bus;
- (v) an insulator located between ~~said~~the first and second electrodes, and having an insulator dimension that is equal to the distance between ~~said~~the first and second regions;

and

(vi) a gate electrode in communication with and contiguous with ~~said~~the insulator and having a width equal to the width separating the first doped region and the second doped region, where ~~said~~the gate electrode is also directly connected to ~~said~~the second voltage bus.

17. (Currently Amended) The integrated circuit of claim 16, ~~wherein~~where ~~said~~the insulator includes an oxide.

18. (Currently Amended) The integrated circuit of claim 17, ~~wherein~~where ~~said~~the oxide comprises silicon dioxide.

19. (Currently Amended) The integrated circuit of claim 1, ~~wherein~~where ~~said~~the electrostatic discharge diode is laterally formed.

20. (Currently Amended) The integrated circuit of claim 13, ~~wherein~~where ~~said~~the electrostatic discharge diode is laterally formed.

21. (Currently Amended) The integrated circuit of claim 16, ~~wherein~~where ~~said~~the electrostatic discharge diode is laterally formed.